

PR 07-JUN-1995; 95US-0479799.
 XX
 PA
 (THER-) THERA PRO.
 PI Gasanov SE, Rael ED, Vernon LP;
 XX DR WPI: 1997-065280/06.
 DR N-ISDB; T47764.
 XX PT New target specific toxins, partic for cancer cells - comprising a
 PT molecule capable of specific binding to the surface of a cell linked
 to Pyrularia thionin peptide.
 XX PS Claim 1; Page 36; 52pp; English.
 CC This sequence is a Pyrularia thionin (PT) protein. Target specific
 CC toxins can be constructed by linking this toxin to a molecule (esp.
 CC monoclonal antibody anti-CD5) capable of specifically binding the sur-
 CC face of a cell. The target specific toxin can be used to kill selected
 CC undesirable cells to which PT is generally cytotoxic, partic. cancer
 CC cells. The immunotoxins can also be used for the manipulation of cells
 CC used in tissue and organ grafts, blood transfusions and bone marrow
 CC transplants and to treat graft-versus-host disease. The immunotoxins
 CC display a high degree of specificity and cytotoxicity. PT is membrane-
 CC active, obviating the need for PT to be internalised in order to exert
 CC its cytotoxic effect. PT is a very stable, compact peptide which is
 CC resistant to most proteases and is not immunogenic. The PT cytotoxic-
 CC ity lost after it is incorporated into the lipid bilayer of a host cell so
 CC that it will not produce second round cytotoxicity towards macrophages
 CC and other cells that come in contact with the membrane of cells contg.
 XX the PT immunotoxin.

DR XX
WPI: 1996-239498/24.
PT New protease inhibitors from the leech *Limnatis niotica* - for
PT treating, e.g. blood clotting disorders, HIV infection, diabetes
XX mellitus etc.
PS Claim 3: Page 26; 41pp; English.
XX
CC The protease inhibitor peptide isoforms given in R96121-23 are
CC elastase/chymotrypsin- and trypsin inhibitors which may be isolated
CC from leech tissue or leech secretions, e.g. saliva. These peptides
CC belong to the family of leech derived substances named fahsin's which
CC also have an antibiotic effect. The fahsin family of proteins comprising
50-55 amino acids and occur in various isoforms. These peptides are
CC useful in the treatment of diabetes mellitus, blood clotting disorders
CC disorders of neutrophil function, e.g. emphysema, rheumatoid arthritis
XX HIV infection and other immunological and inflammatory diseases.
SQ Sequence 50 AA;

```

Query Match          100.0%; score 52; LB 17; Length 50;
Best Local Similarity 20.0%; pred. No. 1.7e+02; Mismatches 0;
Matches 4; Conservative 16; Mismatches 0; Indels 0; Gaps 0;
Qy   1 CXXXXXXXXXXXXXXXCXXXC 20
      ::::::::::::::::::::: ::::::
Db   27 crricpkqgkvedenacelpc 46

```

Sequence 48 AA:

```

Query Match 100.0%; Score 52; DB 18; Length 48;
Best Local Similarity 20.0%; Pred. NO. 1. 6e-02; Mismatches 4;
Matches 4; Conservative 16; Mismatches 16; Indels 0; Gap 0;
Y 1 CXXXCXXXXXXCXXXCXXXC 20
b . 1:::1:::1:::1:::1:::1:::1
      cynvcrqptisreicakc 32

ESULT 4
96122
D R96122 standard; Peptide; 50 AA.
X R96122;
> 17-DEC-1996 (first entry)

Leech derived fahsin based protease inhibitor #2.

Protease inhibitor; isoform; elastase; chymotrypsin; trypsin; leech;
tissue; secretion; salvia; fahsin; antibiotic; diabetes mellitus;
blood clotting disorder; neutrophil function; empysema;
rheumatoid arthritis; HIV infection; human immunodeficiency virus.
limnatis nilotica.

W09613585-A1.

09-MAY-1996.

27-OCT-1995; 95WO-EP04223.

14-MAR-1995; 95EP-0103637.

28-OCT-1994; 94EP-0117053.

(CL00-) CLODICA SA.

Voerman G;

```







